

U.S. Military Academy - Cymnasium
West of the Parade Ground and the Superintendent's
Quarters and north of Scott Barracks
U.S. Military Academy
West Point
Orange County
New York

HABS No. NY-5708-43

PHOTOGRAPHS

WRITTEN HISTORICAL AND DESCRIPTIVE DATA

Historic American Buildings Survey
National Park Service
Department of the Interior
Washington, DC 20013-7127

HABS
NY
36-6861
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HISTORIC AMERICAN BUILDINGS SURVEY
U.S. MILITARY ACADEMY - GYMNASIUM

LOCATION:

West of the Parade Ground and the Superintendent's Quarters and north of Scott Barracks, U.S. Military Academy, West Point, Orange County, New York.

USGS West Point Quadrangle, Universal Transverse Mercator
Coordinates: 18.586640.4582880.

PRESENT OWNER
AND OCCUPANT:

U.S. Military Academy, Department of the Army.

PRESENT USE:

Gymnasium.

SIGNIFICANCE:

The Gymnasium is part of the Cram, Goodhue and Ferguson ensemble of buildings in the Academy and along with its additions, it helps define the architectural character of the Academic Area.

PART I. HISTORICAL INFORMATION

A. Physical History:

1. Date of erection: 1906-1910. Additions in 1935, 1938, 1946, 1967 and 1976.
2. Architect: Cram, Goodhue and Ferguson. Additions: Captain Edwin V. Dunstan, Quartermaster's Office 1935; Paul P. Cret, 1936; Delano and Aldrich, 1946; Raymond and Rado, 1967; and Sverdrup and Parcel, 1975.
3. Original and subsequent owners: U.S. Military Academy, Department of the Army.
4. Builder, contractor, supplier: Charles T. Wills, Inc. The basement and foundation walls of the building were constructed of granite quarried from the former hill behind the Superintendent's Quarters, which became the gymnasium site. At the same time they were building the gymnasium, the Wills Company also had contracts to construct the Chapel, the Chaplain's Quarters, the Battalion Guard House and four double sets of officers' quarters.
5. Original plans and construction: Preliminary drawings were returned to the architects in March, 1904; they were approved August, 1906 and revised May, 1908. Initial plans called for a north wing symmetrical to the natatorium and office wing on the southwest. Superintendent Mills wrote Cram, Goodhue and Ferguson (C,G&F) on June 8, 1904 and designated this north wing, which would have held and assembly hall, as a future addition. (Letter Book, Vol. 8, No. 369,

U.S.M.A. Archives). Drawings and specifications were still under preparation in January, 1905. The natatorium was complete in 1911. The total cost of the original building was \$456,745; the foundations cost \$63,000; the superstructure cost \$374,662; and the contractor's commission was \$19,083 (Annual Report 1911).

In a letter to C,G&F on September 22, 1904, Superintendent Mills mentioned the following: a recommendation to use the steel trusses from Richard Morris Hunt's 1892 gymnasium for the natatorium roof of the new gymnasium; Lt. Koehler, an instructor in gymnastics, visited new gymnasiums at Princeton, the University of Chicago and the University of Pennsylvania; the same type of skylight as the Riding Hall, a Paradigm pattern (flat) rather than a monitor type, would be used; and "I also approve of your expressed desire that the building should be constructed entirely of rough gray brick and gray terra-cotta." (Letter Book, Vol. 9, #277, U.S.M.A. Archives). The Annual Report of 1910 confirms that the steel trusses from the old gymnasium were used in the new building. These can be seen in photographs of the original pool.

A letter from Superintendent Mills to C,G&F in 1905 requested that the rooms for boxing and fencing have the maximum level of light with windows as large as possible but with sills no lower than 5'.

An additional payment of \$658 was made in 1909 for "Fenestra" iron sash (with copper coverings) for the east and west vestibule entrances to the Hall of Trophies (Letter Book, Vol. 20, #226, U.S.M.A. Archives). The following year \$12,000 was spent equipping the new gymnasium (Letter Book, Vol. 22, #115, U.S.M.A. Archives).

Original and subsequent working drawings are in the possession of the Facilities Engineer, Directorate of Engineering and Housing, U.S. Military Academy.

The original natatorium wing on the southwest measured 92'-8" x 72'-2". It was three stories high and was lighted by skylights (see photographs of Cram, Goodhue and Ferguson drawings included in the Supplemental Material section.)

Uses of the original building and its first two additions by floor are given here, taken from working drawings:

1906

Basement: Shooting Gallery, Locker Rooms, Storage.

First Floor: Fencing, Boxing, Bowling, Dressing Rooms and Showers, Offices and Natatorium (swimming).

Second Floor: Gym, Squash Court.

Third Floor: Measuring Room, Dressing Room.

Fourth Floor: Offices.

1933

Basement: Largely unexcavated, Mechanical Room.

First Floor: Cadet Lounge, Offices, Storage

Second Floor: Auditorium, Offices.

Third Floor: Offices, upper Auditorium.

1936

Basement: Mechanical, Locker Room and Showers.

First Floor: Natatorium, Locker Rooms and Showers, Training Rooms, Offices.

Second Floor: Squash Courts, Exercise Room, Locker Rooms and Showers.

Third Floor: Tactical Training Rooms.

Fourth Floor: Handball Courts, Golf Room, Tactical Training Rooms.

Fifth Floor: Upper part of Fourth Floor.

Sixth Floor: Gymnasium.

6. Alterations and additions: There have been five major additions to the building, greatly increasing its size. These additions, seen in the schematic development plan, were as follows: 1933-35 Captain Edwin P. Dunstan; 1936-39 Paul P. Cret; 1946 Delano and Aldrich; 1967 Raymond and Rado; and 1975 Sverdrup and Parcel. Dunstan's additions primarily added locker rooms, a natatorium, exercise rooms, tactical rooms and squash courts. Both the 1946 and 1967 additions were for pools and the 1975 addition, on the foundations of the original natatorium, was for locker rooms.

The gymnasium's exterior is remarkably unaltered. The obvious exception is, of course, where later additions have covered up or opened up walls. Other than minor alterations, the most important change has been the replacement of the east center doorway's doors, sidelights and transom.

The interior of the original building, and its early additions, have been subject to more changes than that of the exterior. The following alterations are in reference to the original 1910 building: Basement: What is now the cadet and women's locker rooms was originally a shooting gallery on the east and storage and lockers on the west.

First Floor: The main body of the building retains its basic plan but the usage, circulation and finishes have changed in the four rooms flanking the central hall: a director's office was combined with the former boxing room (NE) to form the present wrestling room; the former bowling alley (NW) is now a boxing room; the former fencing room (SE) is now a boxing and weight room; and the former storeroom (SW) is now the men's dressing room and two offices.

Many of the connecting doors between these rooms (east-west) have been blocked. The one-story southwest office block still contains three offices but doorways, finishes and room sizes have been altered and the shower room has been removed. The most extensive alteration of this floor is the conversion of the original natatorium to a locker room (1975). Second Floor: The upper floor of the main block retains its original gymnasium function but the upper part of the natatorium is now a combative instruction room. The one original squash court between the gym and the natatorium has been removed.

Third Floor: What was once a dressing room and a measuring room in the south tower are now offices; the upper part of the gym is still a running track. Fourth Floor: Three small offices and a projection room in the south tower are now a storage room.

Major alterations in the additions include the conversion of the cadet lounge of the 1935 addition first floor to offices (cadet lounge use identified from original drawings); the conversion of the auditorium in the 1935 addition to a gym, including a blocked-up stage opening; and the conversion of the 1935 golf room into handball courts.

- B. Historical Context: Although Richard Morris Hunt's gymnasium was only nine years old, it had been outgrown by 1902 and Professor C. W. Larned recommended that it be expanded and enlarged (Annual Report, 1902). Larned calls Hunt's Academic Building (1895) and his gymnasium "French Gothic" and recommends the adoption of the Tudor, a "keynote" style; Larned's recommendations for expanding the gymnasium were not accepted. Subsequently, a new gymnasium became part of the 1903 competition, won by Cram, Goodhue and Ferguson. See appendix for a copy of Larned's statement regarding the old gymnasium. For a general history of the Academy's development, see HABS No. NY-5708, Volume 2: "West Point: An Overview of the History and Physical Development of the United States Military Academy."

PART II. ARCHITECTURAL INFORMATION

A. General Statement:

1. Architectural character: The gymnasium is an unusual example of a major building that has a seventy-year span of major additions, all contemporary yet contextual in style and material to the original. This is Cram, Goodhue and Ferguson's only major work at West Point faced with brick. This brick, however, is contrasted with a profusion of limestone trim, resembling in effect the work of High Victorian Gothic Revivalists. Paul Cret's 1938 addition is a good example of his modernized gothic work at West Point.
2. Condition of fabric: The building's fabric is in excellent condition.

B. Description of Exterior: Architectural information is primarily confined to the original building and selected areas of the 1935 and 1938 additions.

1. Overall dimensions: Dimensions of the original building are 315'-8" x 215'-2". The Cret addition measures 223'-9" x 218'-6" and the Dunstan addition 102' x 245'-4". The original natatorium wing replaced by the 1975 addition, measured 92'-8" x 77'-2". The Cram Goodhue and Ferguson building had a symmetrical facade of eleven bays with a two-bay wing on the south. The main block is three stories above a basement with the corner towers rising to four stories. The southwest office wing is one story above a basement.
2. Foundations: Foundations are granite rubble on concrete footings. The exterior foundation walls vary in thickness from 2'-6" to 5'-6"

having an interior 4" veneer of brick. Interior partition walls are brick. The granite foundation wall is slightly above finished grade on the facade and switches to dressed limestone without a watertable at the first floor level. Even though the limestone rises halfway to the second floor, this cut and dressed stone is visually intended to represent the foundation wall by virtue of a molded limestone watertable where it stops and where the brick wall above it begins.

3. Walls: The exterior walls begin as granite, switch to dressed limestone (effectively the foundation in appearance) and halfway through the first floor, switch to brick. The brick, laid in a Flemish Bond, is beige and gray with brown headers and has a rough surface texture. The Dunstan and Cret additions also have Flemish Bond brick walls with limestone trim.

The facade is composed of two corner towers (stairways) with a lower section between them. The central entrance is the dominant vertical element and is treated as a sally port with a large arched doorway, above which is a balcony and a tall window set within a large pointed arch. Compositionally, the wall is divided vertically by flat pilaster type buttresses which rise above and correspond to the window bays of the first floor. The horizontal composition is that of the large limestone window arches of the first floor and the two-story expanse of the gymnasium above it. Limestone bands across the lower part of the upper walls, along with the limestone trim of doors, windows, blind windows, coping and decorative trim, produces a polychromy effect. Of the additions, Paul Cret's wall treatment of blind arches and limestone trim on the west elevation is especially well designed.

4. Structural systems, framing: The building is structurally composed of load-bearing brick walls on a stone and concrete foundation, terra cotta block and concrete floors, Gustavino tile vaulting and steel girder and trusses.

5. Openings:

- a. Doorways and Doors: Of the original doorways, four remain: the central doorway on the east, the two tower doorways on the east and a secondary office doorway on the south. The central western entrance was incorporated into the 1938 addition. Each of the three principal doorways are framed by a large limestone pointed arch. The tower doorway arches have spandrels filled with a limestone sculpture of an eagle holding a shield. In addition, a sculptured shield is positioned at the apex of each tower arch. The vertical panel doorways with their heavy iron strap hinges and grilled transom windows still exist in the towers; the central door has been replaced.

The 1935 Dunstan addition has a principal doorway composed of three pointed arch openings with panelled doors and tripartite transom windows. A large studded oak wall with a wicket door fills an arched doorway on the west elevation of this addition. Cret's west doorway consists of a square-headed door opening and a tall window wall above with clear leaded glass, all set within two recessed pointed arches.

- b. Windows: Cram, Goodhue and Ferguson's fenestration for the gym conforms to their other designs at the Academy in that it is varied according to floor and elevation. The principal windows are those on the facade: the tripartite arch windows of the first floor and above the central entrance. These are one-over-one double-hung wooden sash behind a decorative wrought iron grille (flanking side pieces of the first floor windows are single light wooden windows which swing). With the exception of the one-over-one double-hung wooden sash of the office wing, most of the other windows of the original building are wooden, multi-paned hinged or pivoting types with limestone sills, jambs and lintels. The upper south elevation of the gym has three arched mullioned windows with multiple lead came lights.

To a large degree, the 1935 Dunstan addition has windows that were modelled on the originals, the chief difference being that they are cast iron rather than wood.

8. Roof:

- a. Shape, covering: The roof was not examined. The original building had a combination of tar and gravel on a flat roof and slate on the gabled natatorium roof. Both the natatorium and the gym had skylights; skylights remain on the gym roof.
- b. Cornice: A slightly projecting limestone cornice surrounds the whole building.
- c. Towers: Square towers flank the principal gymnasium, containing stairways to the upper gym floor. These are decorated with limestone trim and recessed or projecting brick surfaces.

C. Description of the Interior:

1. Floor plans: Sketch plans are provided in this data to describe the present use of the Cram, Goodhue and Ferguson building. These can be compared with the photographs of the original plan and use, found in the Supplemental Material. The uses of the building today are listed here by floor (for a plan, consult drawings in the Facilities Engineer's Office, Department of Engineering and Housing, U.S.M.A.): Basement: Locker rooms, store rooms, mechanical equipment, ski room, laundry rooms, and janitorial rooms. First Floor: Boxing, wrestling, storeroom, offices, locker rooms, storage, three pools, and mechanical equipment. Second Floor: Three gymnasiums, two combative training rooms, exercise room, officers' locker rooms, offices, squash courts, and mechanical equipment. Third Floor: Running track, offices, combative training room, wrestling, tactical training rooms, and storage. Fourth Floor: Offices, handball and squash courts, gymnasium, weight room, tactical training rooms, storage rooms and a projection room. Fifth Floor: Locker room, mechanical rooms and the upper part of the fourth floor gym and squash courts. Sixth Floor: Gymnasium, sun deck, and mechanical equipment.
2. Stairways: In the original building there are two principal stairways, one in each tower. The other staircases of interest are those in the

1935 addition that are located on each side of the lobby/foyer. The original stairways have bluestone steps, groin and barrel vaults with brick and concrete arches and Gustavino vaulting. Bas relief sculptural shields adorn the stairways. The north windows of the north stairway are blocked and its east windows have been replaced. The 1935 addition's staircases feature limestone pointed arches, marble baseboards, marble handrails, solid limestone balustrade and glazed terra cotta ceilings. The Cret stairways also feature glazed terra cotta ceilings and brick wainscot.

3. Flooring: The central passage areas of the original building have a decorative quarry tile and green slate floor while other passage areas have a concrete or granolithic (vestibule) floor covering. The gym has a wood floor while some of the first floor rooms have a later asphalt tile floor. The 1935 addition has quarry tile floors in the public passage areas and wood floors in some offices.
4. Wall and ceiling finish: Baseboards in the original building's public spaces are "concrete stone" and Welsh quarry tile. Gray brick with "concrete stone" bands and darker gray headers forming diagonal or diamond patterns form the central corridor walls. The spandrel space above doors in the central passage have polychromatic terra cotta sculptures. The cross-axial passage has stone corbels with carved figures at the intersection with the main central passage. The south tower passage spaces have brick walls with limestone bas relief shields. The office and first floor gym rooms have brick walls for the most part. The auditorium space of the Dunstan addition retains its glazed terra cotta tile walls but these are now painted. The third floor lobby area has plaster walls. Cret's passage and stairways have walls of glazed terra cotta.

Passage and stairway ceilings in the original building are groin or barrel vaulted, featuring Gustavino vaulting arches of alternating gray brick and brown "concrete stone." Transverse steel beams span the north-south passage of the original section as well as the ceiling of the southeast and northeast boxing rooms. The main gym of the second-third floors has an open steel truss ceiling and a skylight monitor. The original effect of this ceiling has been lost due to forced-air ducts and new lights.

The Dunstan addition ceiling of the lobby and foyer is plaster with large painted beams and a painted border. The stairways in this area have tiled ceilings. The walls in the lobby/foyer are limestone with a marble baseboard. The second floor foyer has stone walls while the third floor has plaster walls.

5. Openings:
 - a. Doorways and doors: Original doors, where they exist in the Cram, Goodhue and Ferguson building, are oak. Although the exterior doors of the central entrance are new, the bi-valve vestibule doors in this entrance are original, with metal muntins and glass for doors, sidelights and transoms. The vestibule doors of the Dunstan lobby are similar. All passage doors on the west side of the northeast wrestling room are now blocked, as are those

on the east wall of the northwest boxing room. The many archways of passages, lobbies and stairways create many doorways without doors. The second floor offices off of the lobby in the Dunstan addition feature oak batten doors with large wrought iron nails.

6. Decorative features and trim: Most of the decorative trim is associated with those parts of the building discussed above. One other feature of note is a suspended running track around the upper part of the Cram, Goodhue and Ferguson gym; this retains its cast iron balustrade.
7. Mechanical Equipment:
 - a. Air-conditioning: Some of the first floor gym rooms in the original building have been retrofitted with forced air ducts that are suspended from the ceiling. The original and present system of heating is presumably steam heat.
 - b. Lighting: Original lights of note exist in the public passage areas of the Cram, Goodhue and Ferguson building and in the lobby and foyer areas of the Dunstan addition. The Cram, Goodhue and Ferguson lights, with many missing globes, are similar to those used in the firm's other buildings at West Point. Many of the gym rooms and offices of the first floor have fluorescent lights, and in one case, mercury vapor lights (wrestling room). Black and Boyd is listed in the Annual Report of 1910 as the supplier of lighting fixtures.
8. Original Equipment: The Annual Report of 1910 lists the Narragansett Machine Company as supplier of "gymnastic apparatus, lockers and racks."

D. Site:

1. General setting and orientation: The gymnasium faces east toward the parade ground and Quarters 100 and 101 (HABS No. NY-5708-1 and 5708-2). When it was built, the gymnasium was much more of a presence on the Plain. Both the landscape of Quarters 100 (HABS No. NY-5708-1) and the northern and eastern wings of Washington Hall (HABS No. NY-5708-44) have helped make it a background building. Nevertheless, through its five additions, it is one of the largest structures at West Point and stands as the northern edge of the "Academic Area" group. To the west, the building nestles into the void of a granite hill, whose face was quarried for several Cram, Goodhue and Ferguson buildings. Because of this relationship with the hill, Cret's 1938 addition to the building is accessible from DeRussy Road via a bridgelike flight of stairs to the "sally port" entrance on the west. This western entrance is at the fourth floor level.

PART III. SOURCES OF INFORMATION

- A. Architectural Drawings: Original working drawings exist for the Cram, Goodhue and Ferguson building as well as for all additions. These are in the Facilities Engineer's Office, Directorate of Engineering and Housing, U.S. Military Academy.

- B. Early Views: There are good early views of both the interior and exterior of the gymnasium at the U.S. Military Academy Archives and Special Collections, some of which are reproduced in the Lange and Grashof volumes of this project.
- C. Bibliography:
1. Primary and unpublished sources: Records and letters, U.S. Military Academy Archives and Special Collections. See the bibliographic essay in the Lange volume of this project for a listing of record groups.
 2. Secondary and published sources:

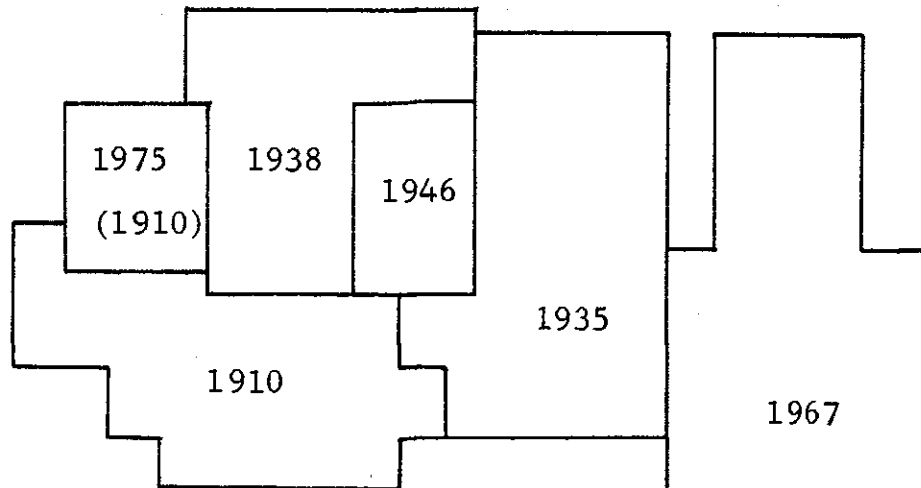
Grashof, Bethanie C. "Building Analysis and Preservation Guidelines for Category I and Selected Category II Buildings at the United States Military Academy, West Point, New York," Historic American Buildings Survey, 1983. HABS No. NY-5708.

Lange, Robie S. "West Point: An Overview of the History and Physical Development of the United States Military Academy," Historic American Buildings Survey, 1983. HABS No. NY-5708.

Annual Reports, U.S. Military Academy Archives.
- D. Likely Sources Not Yet Investigated: A more thorough investigation of the U.S. Military Academy Archives and Special Collections might yield more information. Two sources not researched are the National Archives in Washington, D.C. and records of the various architectural firms associated with the building, especially those of the Cram, Goodhue and Ferguson office.
- E. Supplemental Information:
1. Schematic Development Plan.
 2. Sketch of present floor plans.
 3. Excerpt from the Annual Report of 1902, U.S. Military Academy.

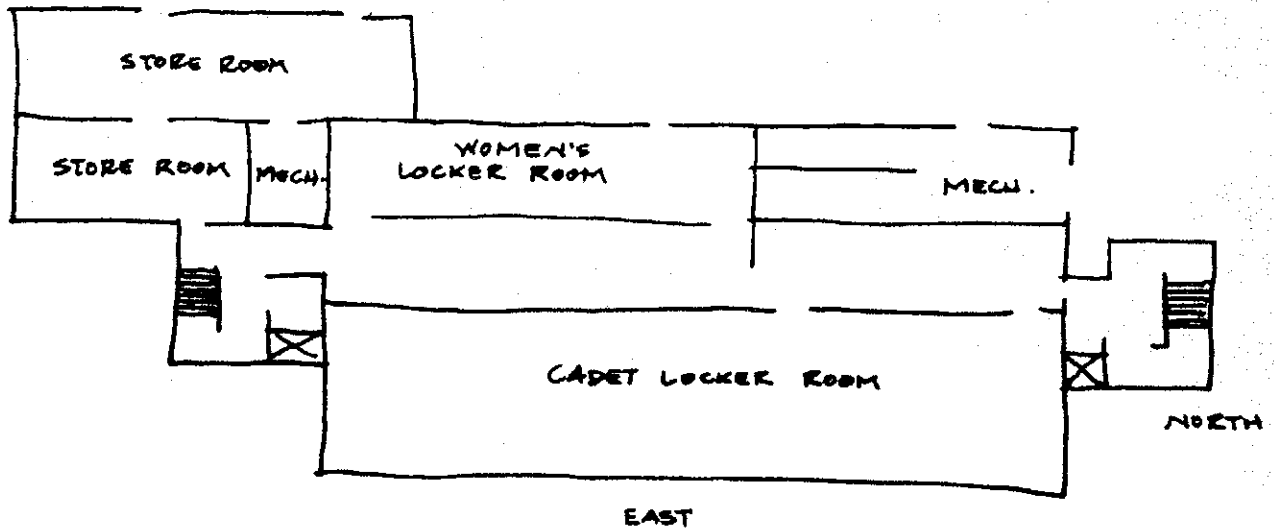
E. Supplemental Material

1. Schematic Development Plan

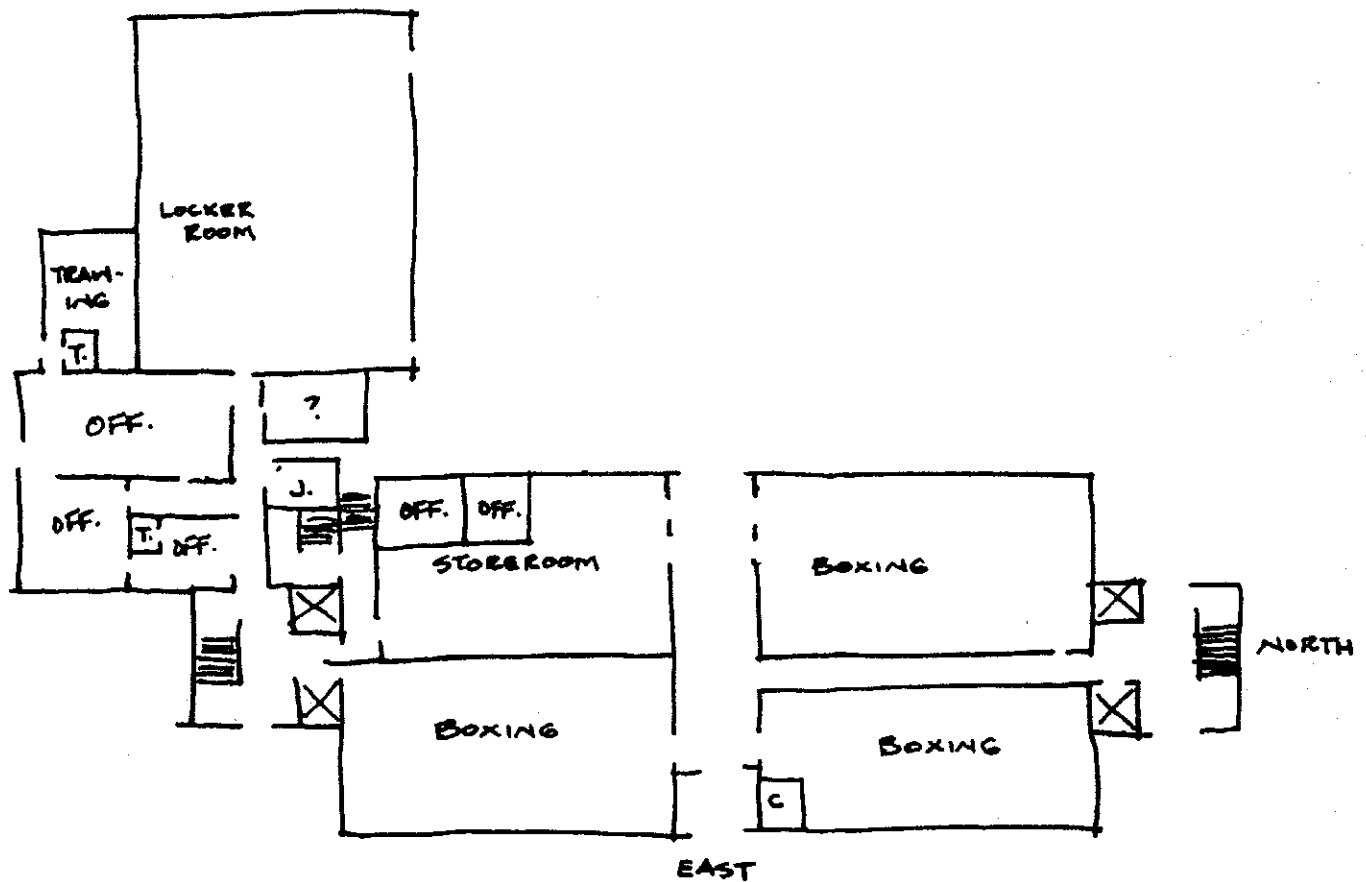


Gymnasium H.A.B.S. NY-5708-43
Schematic Development Plan
Not to Scale
T.C.M. 1985

2. Sketch of present floor plan



BASEMENT

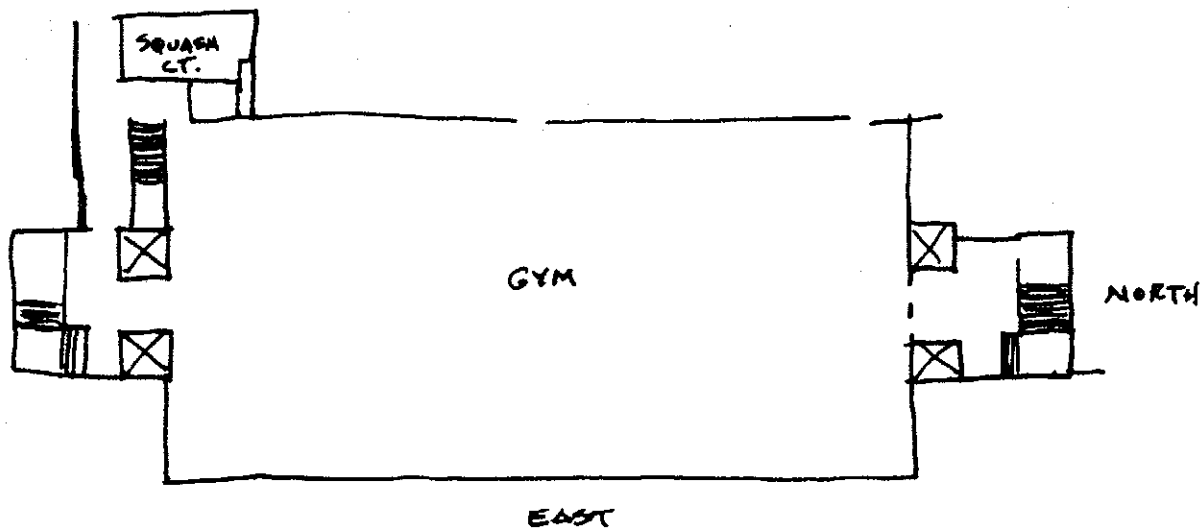


FIRST FLOOR

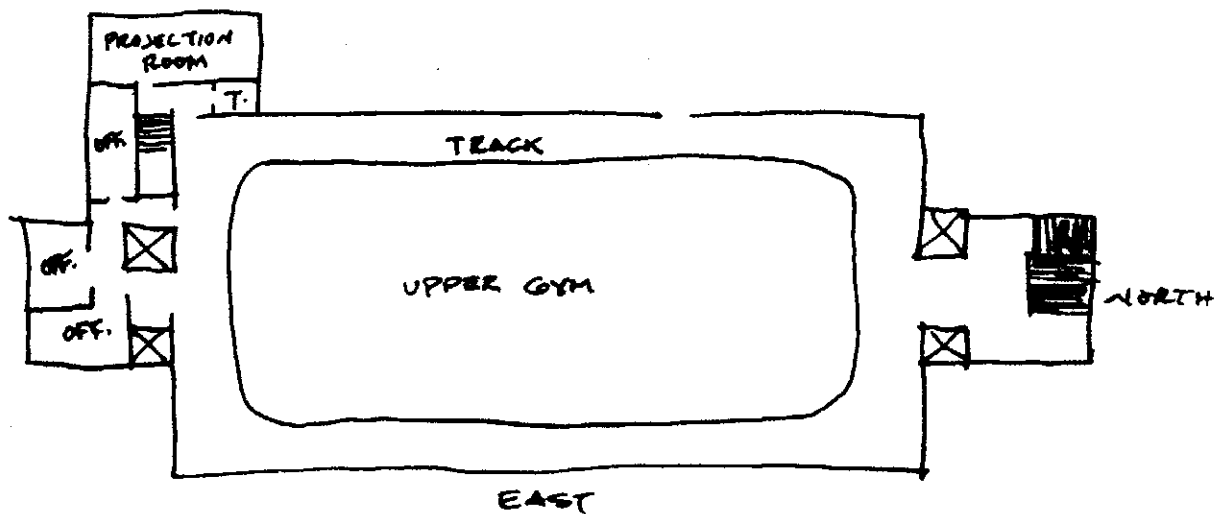
T.C.M.
1985
NOT TO SCALE

E. Supplemental Material

2. Sketch of present floor plan



SECOND FLOOR



THIRD FLOOR

T.C.M.
1988
NOT TO SCALE

PART IV. PROJECT INFORMATION

This documentation is part of a multi-year project sponsored by the National Park Service and the United States Military Academy, explained in HABS NO. NY-5708, Volume 1, "Methodology." This written documentation was prepared by Travis C. McDonald, Jr., architectural historian, in 1982-1985 based on fieldwork conducted in 1982.

ADDENDUM TO
U.S. MILITARY ACADEMY,
GYMNASIUM
(U.S.M.A., Building No. 727)
West of De Russy Loop,
South of Parke Road
U.S. Military Academy
West Point
Orange County
New York

HABS No. NY-5708-43

HABS
NY
36-WEPO,
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National Park Service
Department of the Interior
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Washington, D.C. 20013-7127